

APPARATUS AND METHOD FOR CONDITIONING A CONTACT SURFACE OF A PROCESSING PAD USED IN PROCESSING MICROELECTRONIC WORKPIECES

ABSTRACT

Conditioning devices, systems and methods for conditioning a contact surface of a processing pad used in processing microelectronic workpieces. One embodiment of a conditioning device comprises an end-effector having a conditioning surface configured to engage the contact surface of the processing pad and a plurality of microstructures on the conditioning surface. The microstructures can be arranged in a pattern corresponding to a desired pattern of microfeatures on the contact surface of the processing pad. In several embodiments, the microstructures are raised elements projecting from the conditioning surface and/or depressions in the conditioning surface. The condition surface can also be smooth. The conditioning device can also include a heater coupled to the end-effector for heating the processing pad.